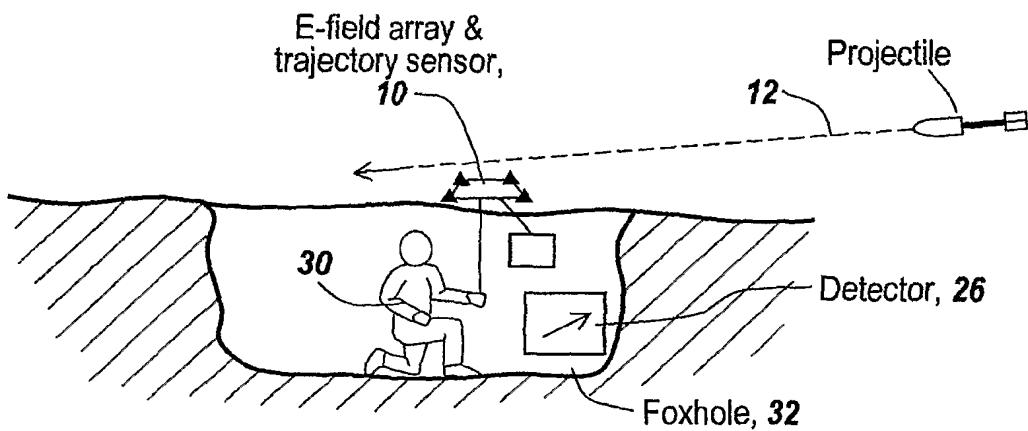
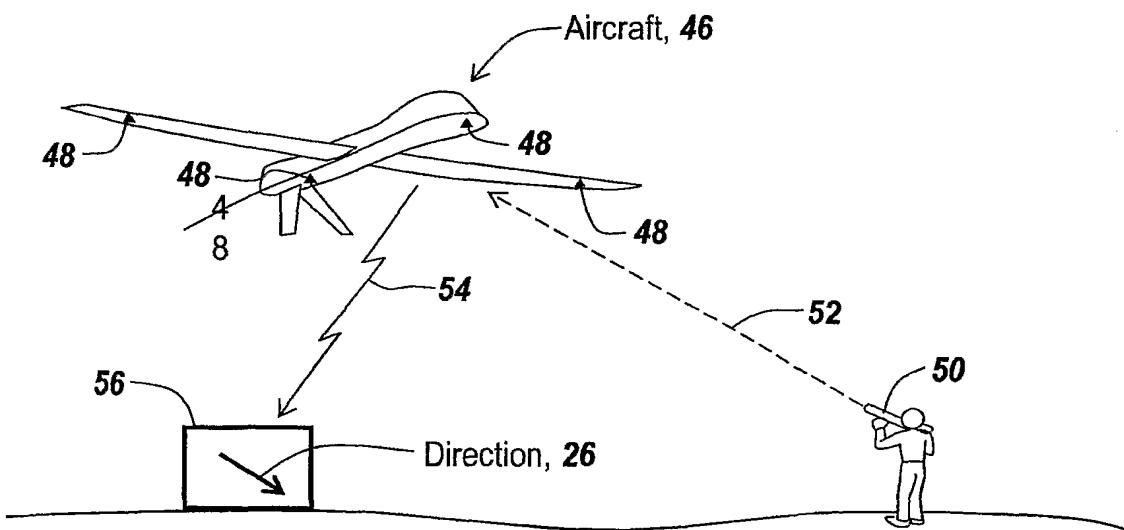
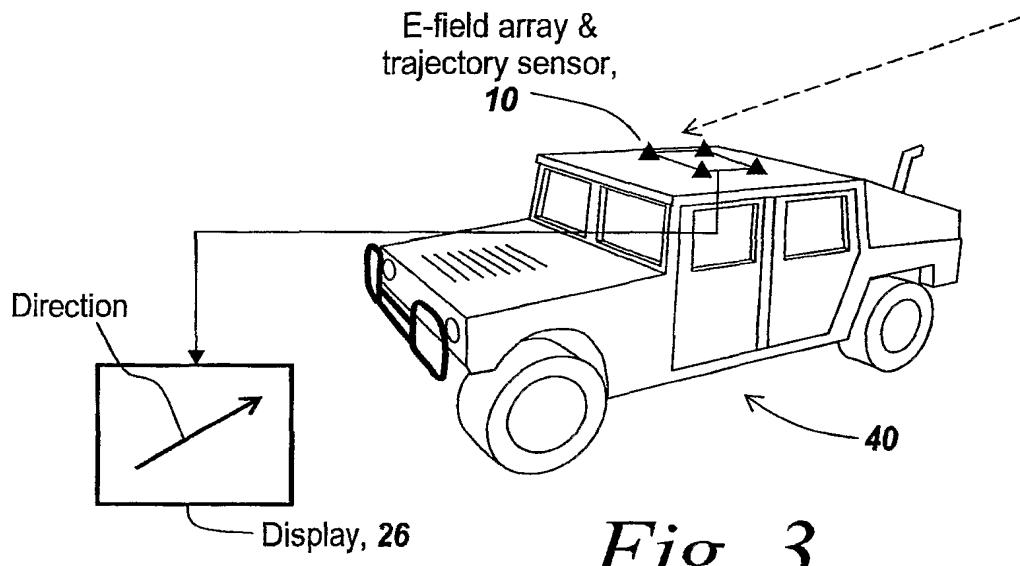


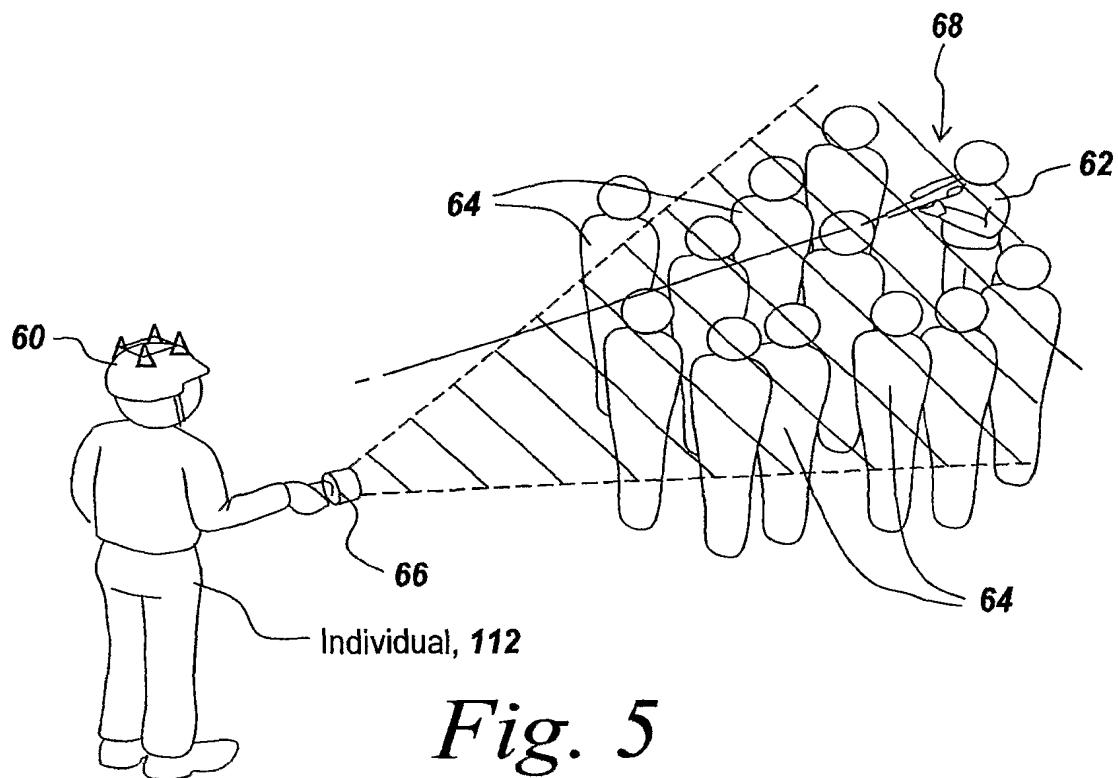
*Fig. 1*



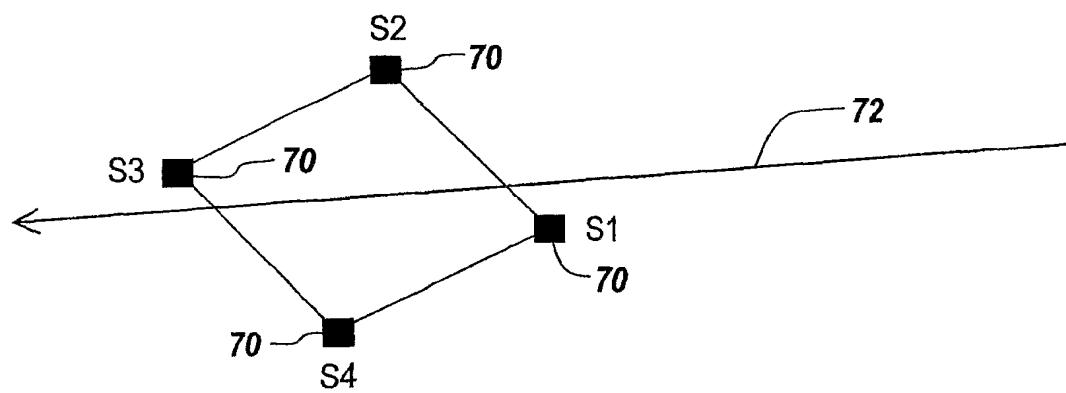
*Fig. 2*



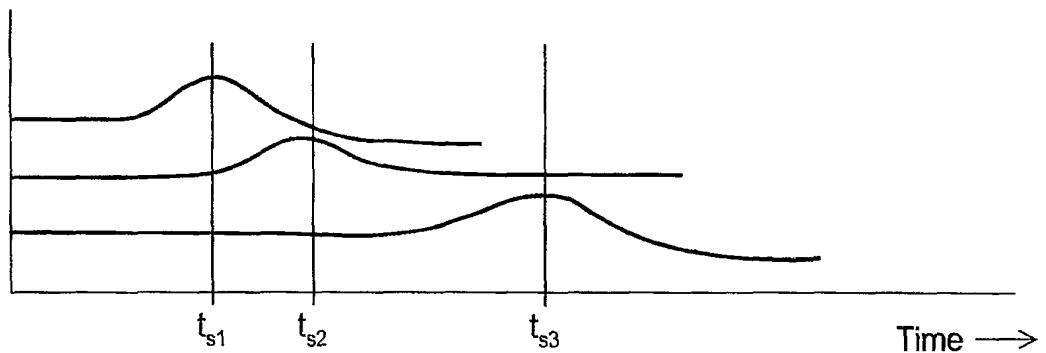
*Fig. 4*



*Fig. 5*

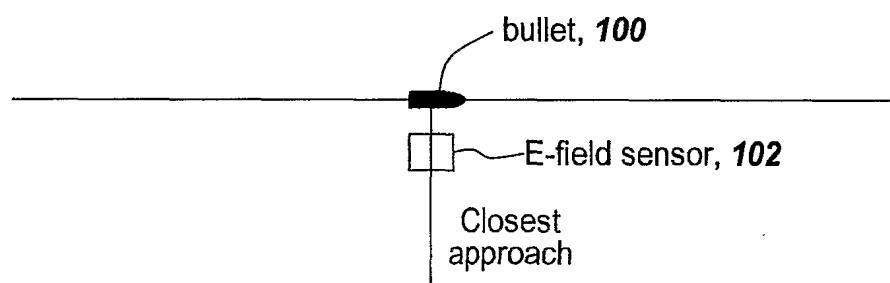
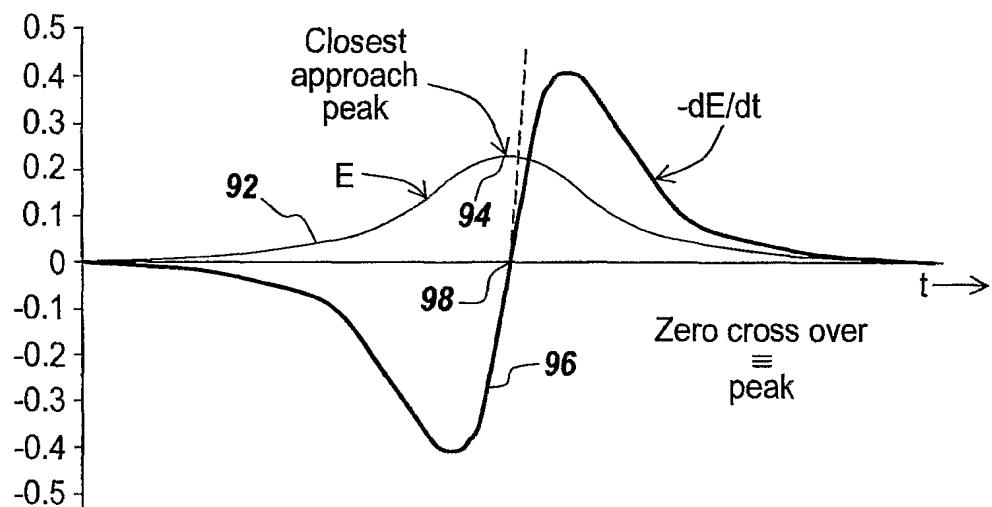


*Fig. 6*



TDOA  $t_{s1}$   $t_{s2}$   $t_{s3} \rightarrow$  Arc 2 Tan  $\rightarrow$  bearing (azimuth)

*Fig. 7*



*Fig. 8*

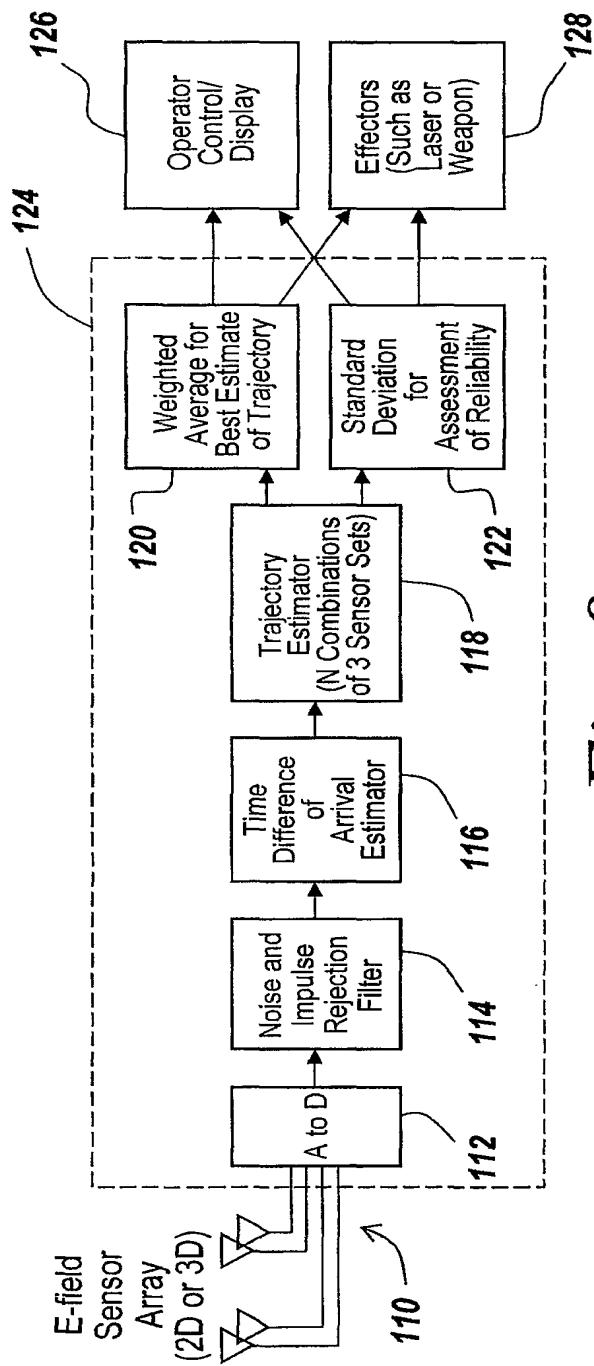


Fig. 9

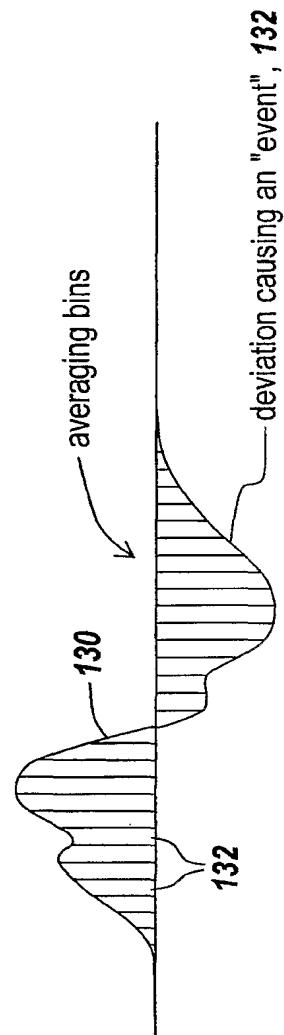
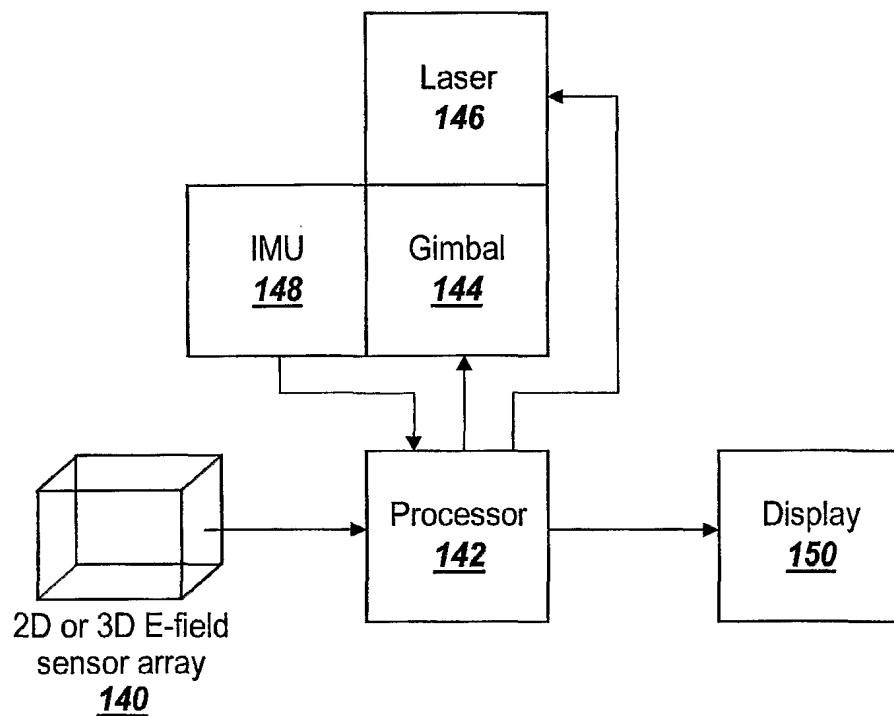
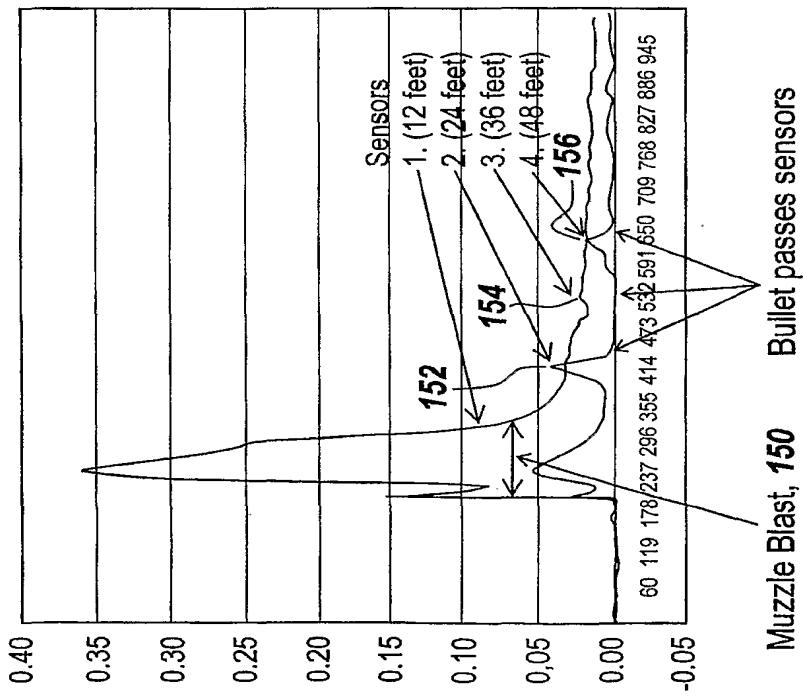


Fig. 10

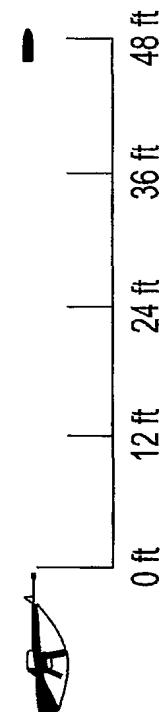


*Fig. 11*

## Detection of .223 (M4) Bullet

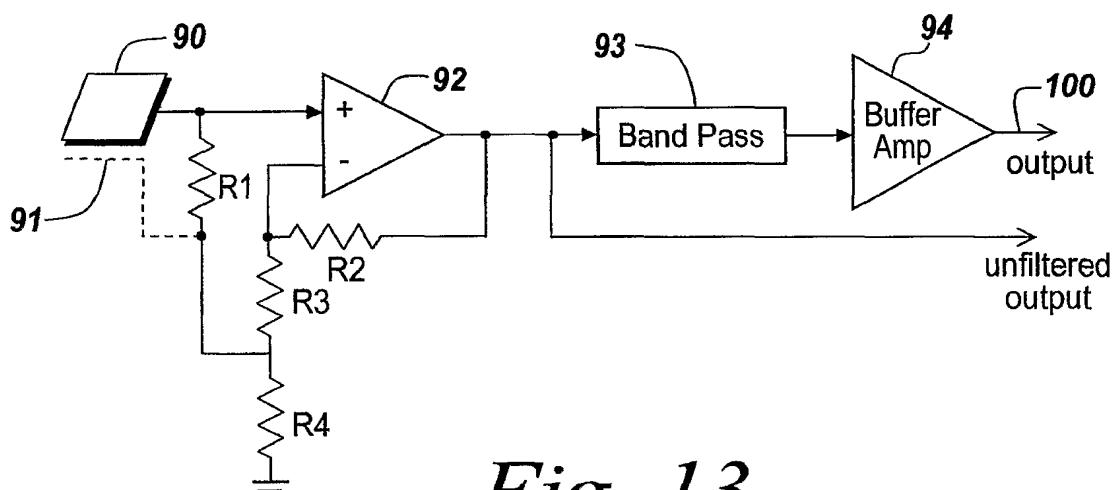


- Second Generation Sensor
- E-field Signatures travel at the speed of light
- The bullet is traveling at about 2800 ft/sec
- All sensors register the muzzle blast "at the same time"
- Sensors 2, 3 and 4 show "blips" as the bullet passes them



Muzzle Blast, 150      Bullet passes sensors

Fig. 12



*Fig. 13*

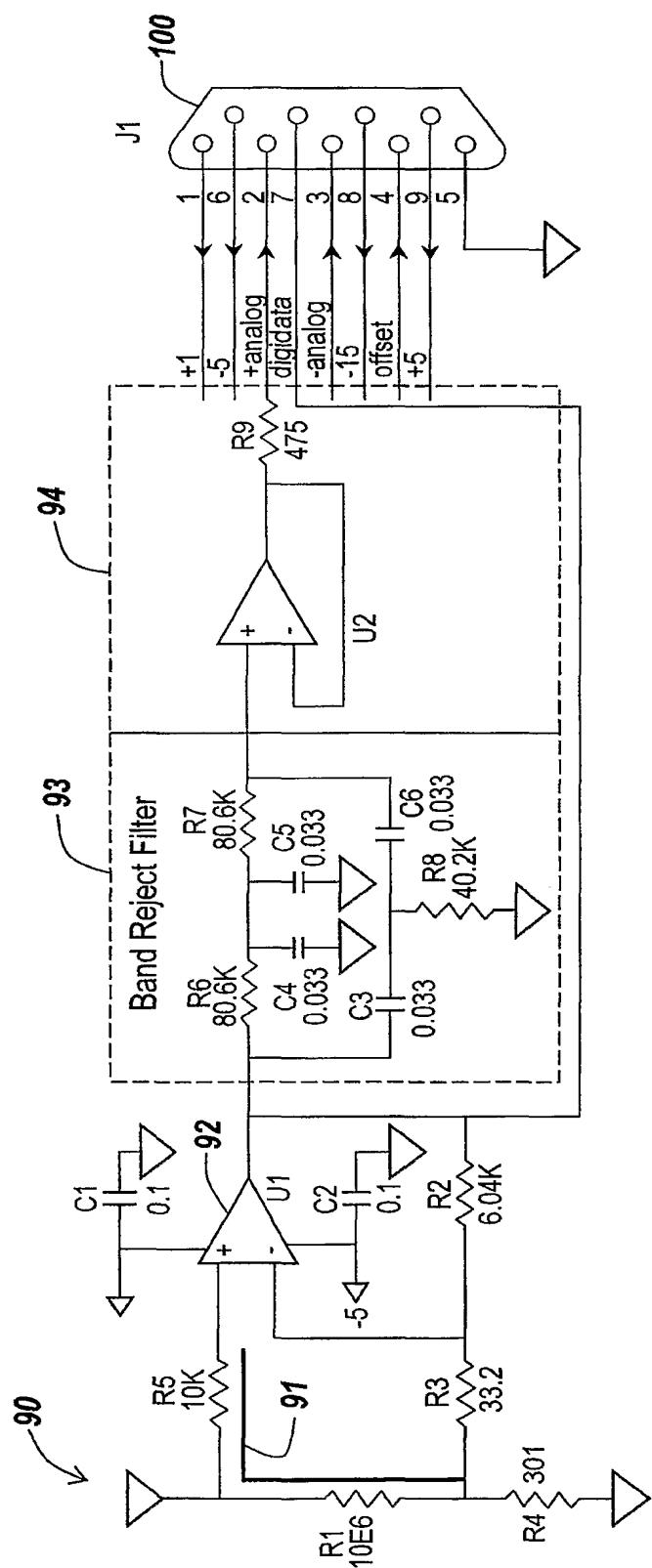


Fig. 14

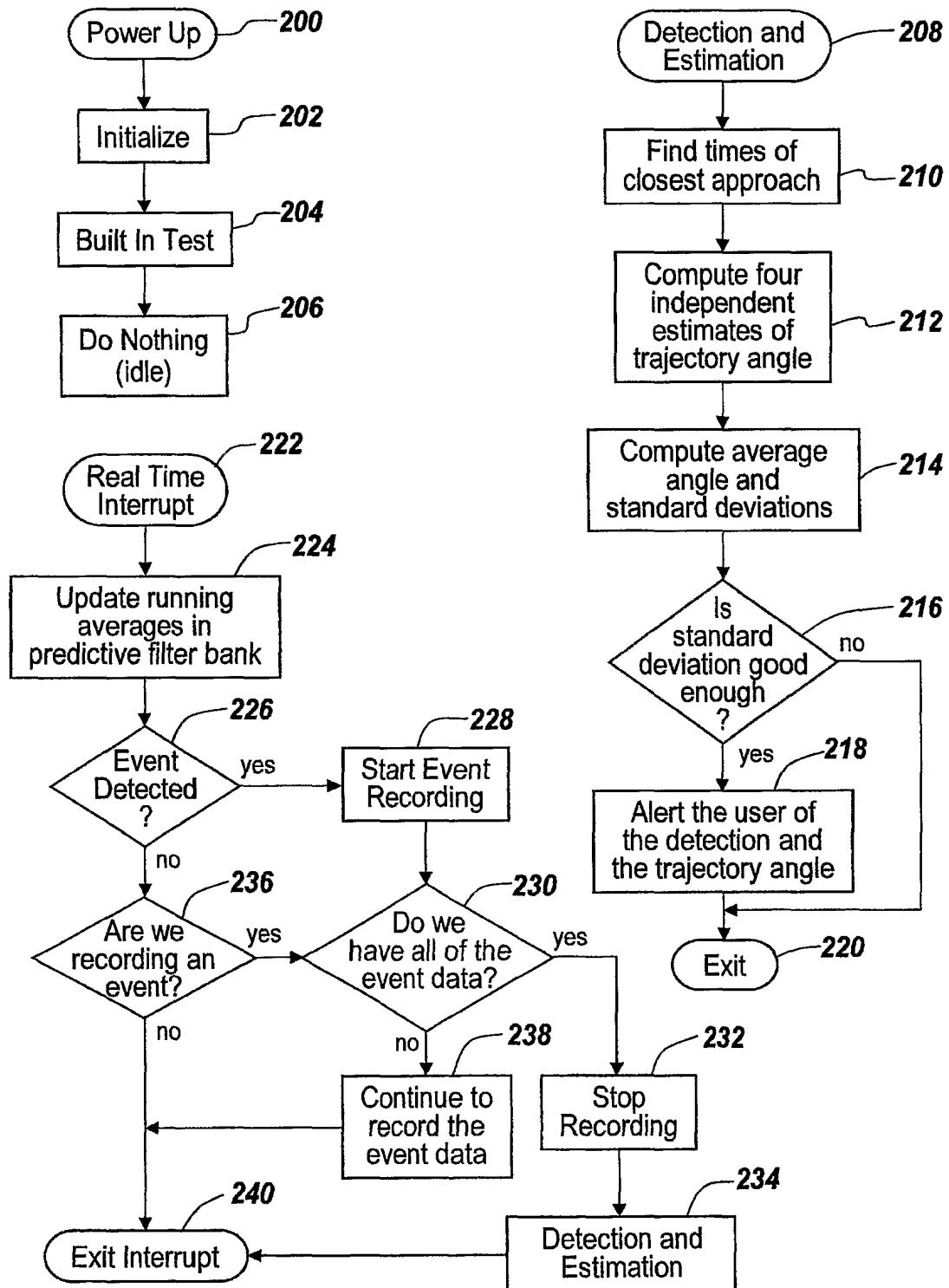


Fig. 15